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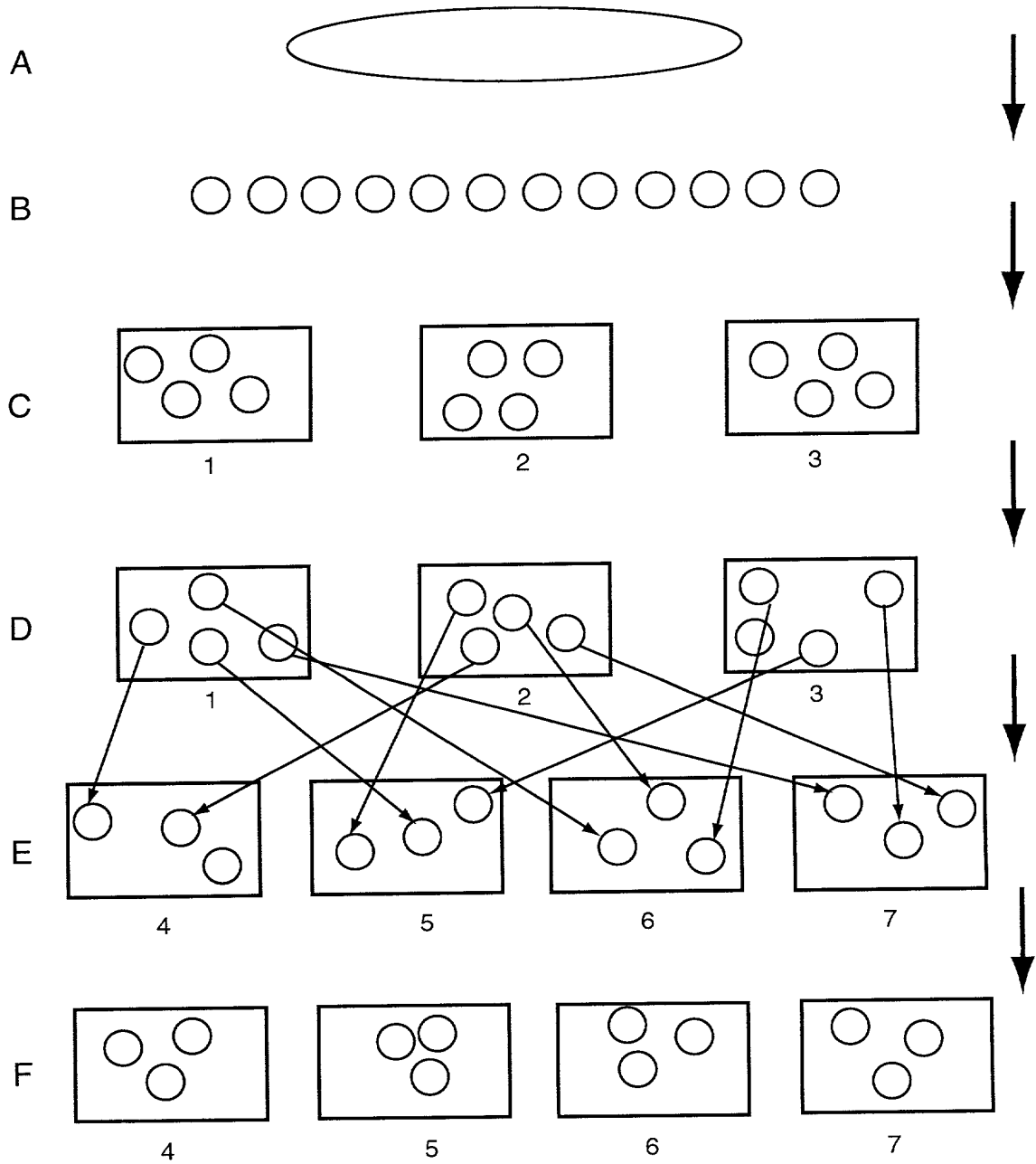


Fig. 1

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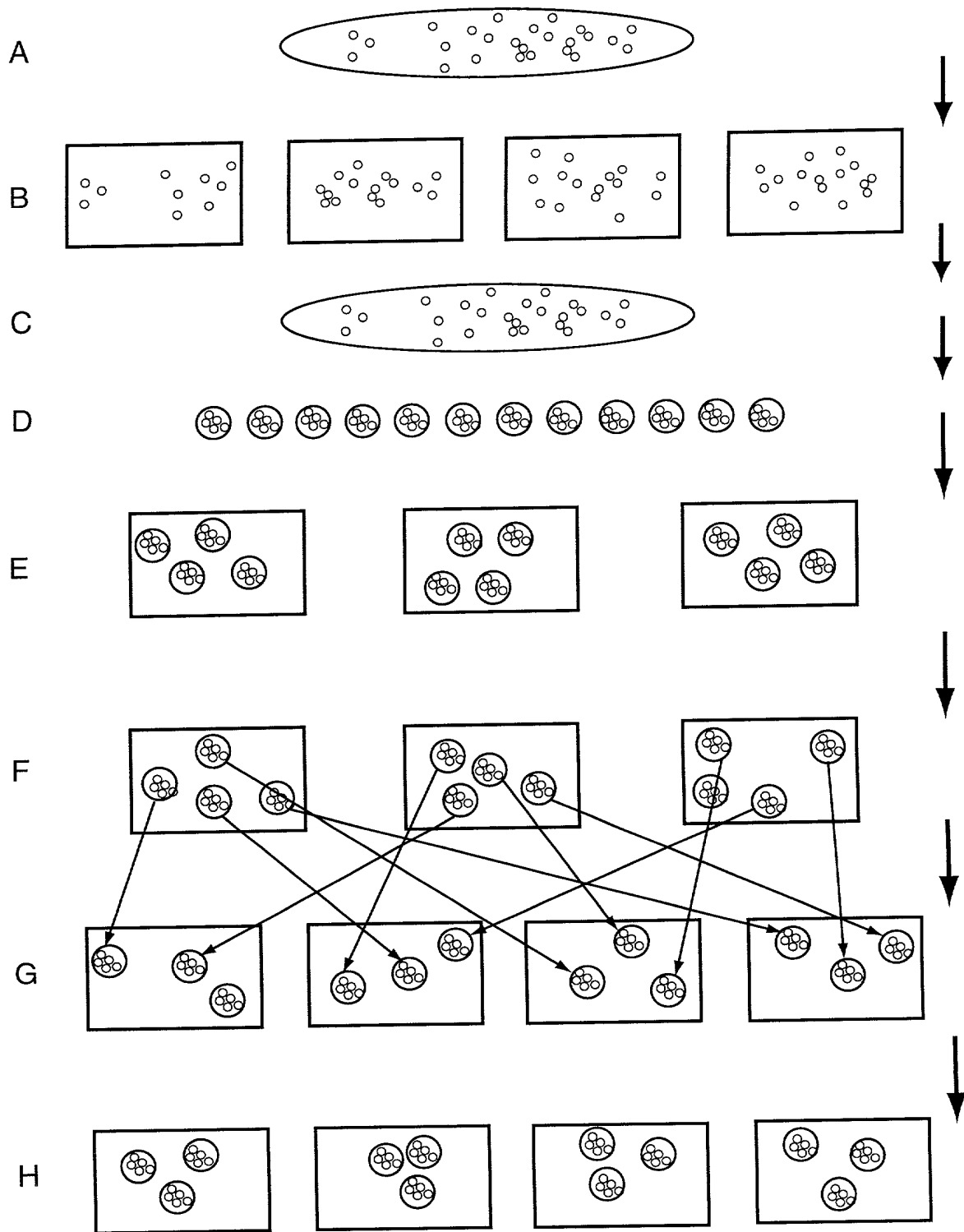


Fig. 2

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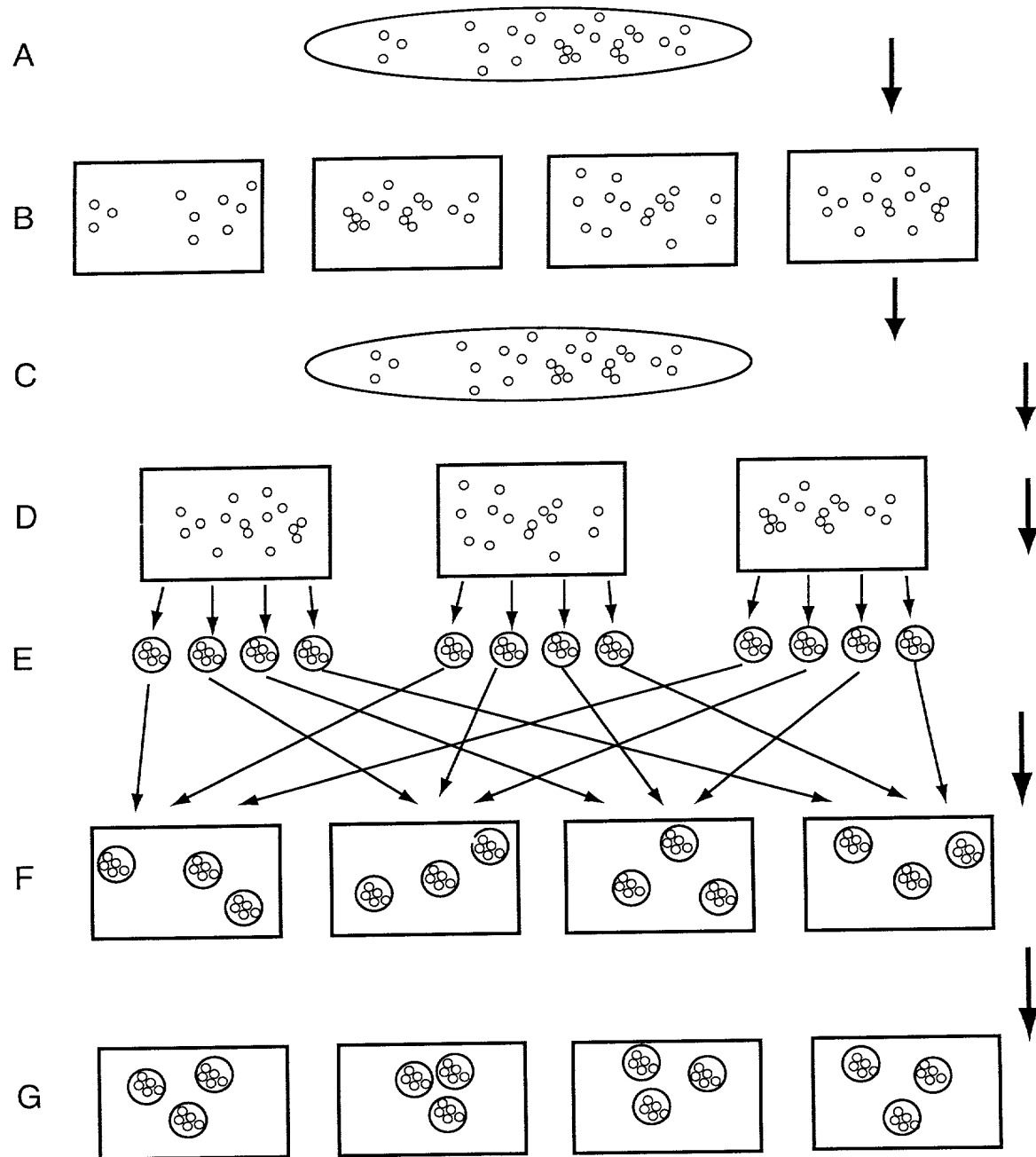


Fig. 3

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A1

segregate solid phase synthesis units into  $n$  separate first stage reaction vessels to provide  $m \cdot f$  solid phase synthesis units in each of the  $n$  vessels



A2

deliver different first components to each of the  $n$  separate first stage reaction vessels to yield first stage reacted solid phase members following reaction of the different first components with the solid phase synthesis units



A3

segregate the first stage reacted solid phase members from the  $n$  separate first stage reaction vessels into  $m$  separate second stage reaction vessels by distributing at least one of the first stage reacted solid phase members from each of the separate first stage reaction vessels into each second stage reaction vessel



A4

deliver different second components to the second stage reaction vessels to yield the combinatorial library following reaction of the different second components with the first stage reacted solid phase members



A5

detect distinguishing physical properties of selected members of the combinatorial library

Fig. 4A

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B1

segregate the at least  $n*m*f$  solid phase synthesis units into  $p$  separate third stage reaction vessels such that each separate third stage reaction vessel includes at least  $n*m*f/p$  solid phase synthesis units



B2

deliver different third components to each of the separate third stage reaction vessels to yield third stage reacted solid phase members following reaction of the different third components with the solid phase synthesis units



B3

combine and mix the third stage reacted solid phase members in a single pool to provide the solid phase synthesis units for A1

Fig. 4B

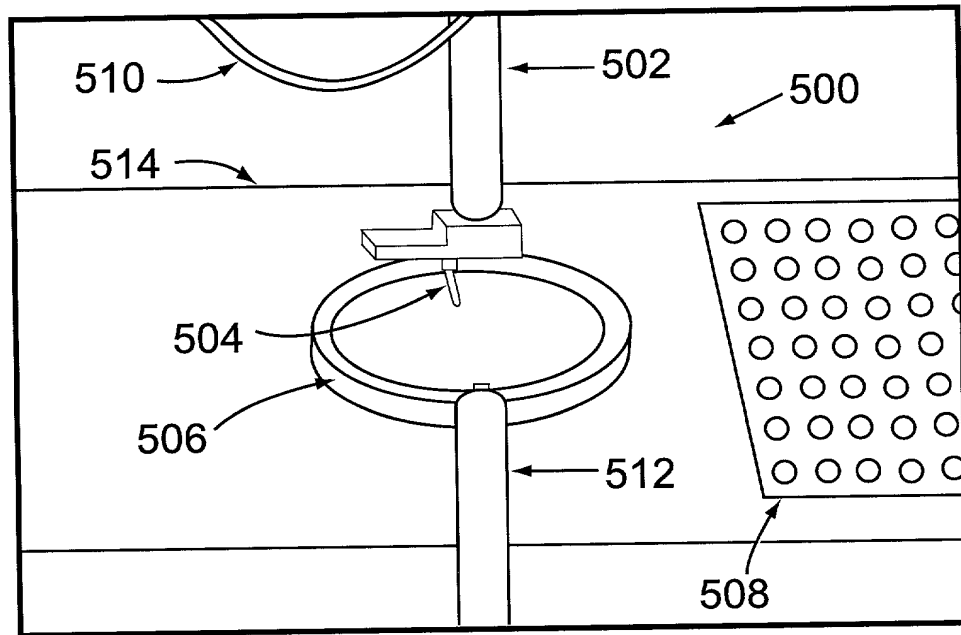


Fig. 5A

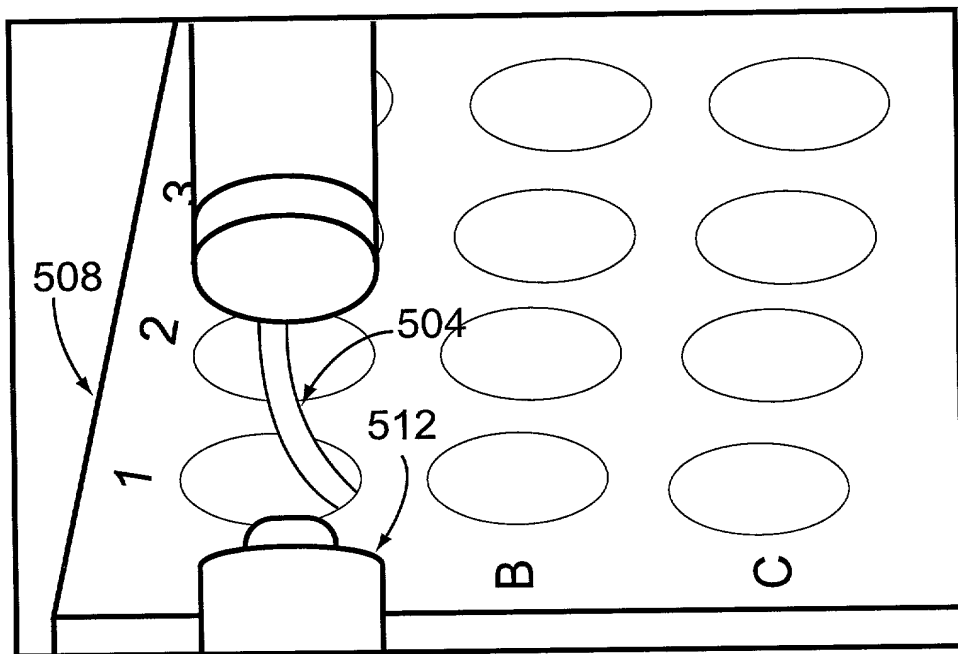


Fig. 5B

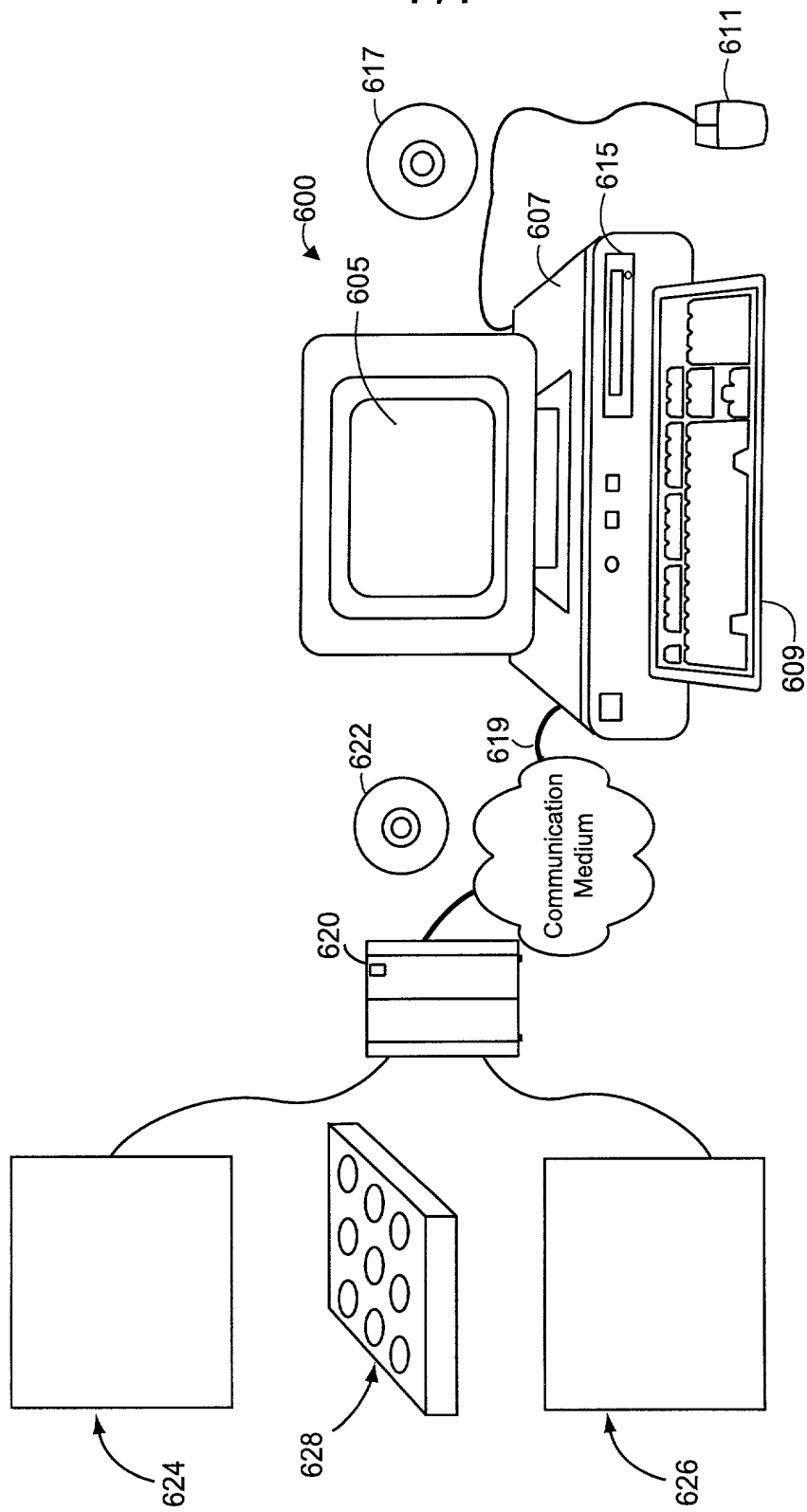


Fig. 6